

# FANUC Robot LR Mate 200iD



## FEATURES

LR Mate 200iD is a human arm sized mini robot.

- The slim arm minimizes interference to peripheral devices at narrow space.
- Standard arm (717mm reach), short arm (550mm reach), long arm (911mm reach), clean type, water-proof for washing and 5-axes high speed type are available.
- The lightest mechanical unit in its class realizes easy integration into a machine or upside-down mounting on a frame.
- High rigidity arm and the most advanced servo technology enable smooth motion without vibration in high speed operation.
- Wrist load capacity is enhanced extremely. It makes efficiency to increase by handling plural work pieces.
- Sensor cable, auxiliary axis cable, solenoid valve, air tube and I/O cable for device control are integrated in the arm. It realizes easy hand cabling. (option for limited model)
- Dust and water proof ability is enhanced to IP69K for mechanical unit. It expands various application. (option for limited model)
- High performance controller R-30iB Mate has two types, such as standard of enclosed controller that enables reliable operation under factory environment with dust and oil mist, and compact controller for clean environment.
- Various intelligent functions are available as option, such as "robot link" that synchronizes plural robots operation, "soft float" that enables the hand to follow the work piece and "collision detection" that minimizes damage by interference to peripheral devices.
- Advanced intelligent functions are available as an option, such as *i*RVision (integrated vision) and part insertion by force sensor.

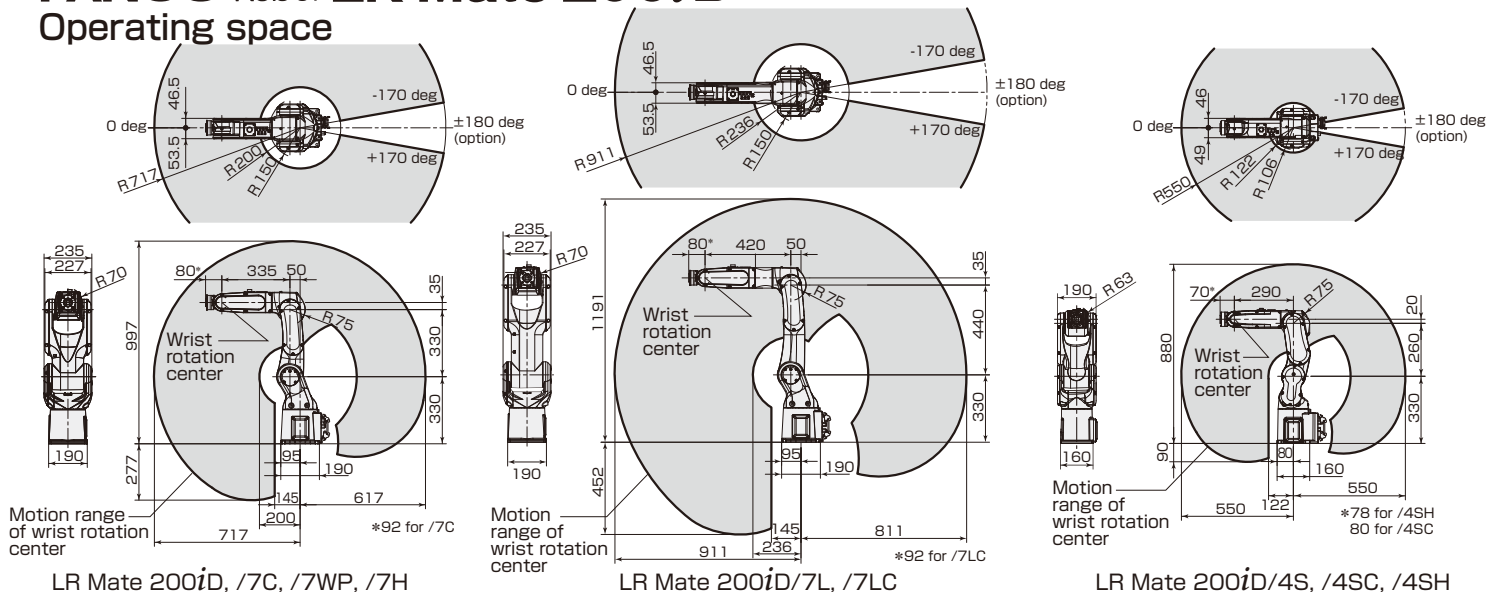
## Application system



Load/unload from ROBOTDRILL

# FANUC Robot LR Mate 200iD

## Operating space



## Specifications

Model	LR Mate 200iD LR Mate 200iD/7C LR Mate 200iD/7WP	LR Mate 200iD/7H	LR Mate 200iD/7L LR Mate 200iD/7LC	LR Mate 200iD/4S LR Mate 200iD/4SC	LR Mate 200iD/4SH	
Controlled axes	6 axes		5 axes	6 axes		
Reach	717 mm		911 mm	550 mm		
Installation (Note 2)	Floor, Upside-down, Angle mount		Floor, Upside-down, Angle mount			
Motion range (Maximum speed)	J1 axis	340° /360° (option) (450° /s) 5.93 rad/6.28 rad (option) (7.85 rad/s)	340° /360° (option) (370° /s) 5.93 rad/6.28 rad (option) (6.46 rad/s)	340° /360° (option) (460° /s) 5.93 rad/6.28 rad (option) (8.03 rad/s)		
	J2 axis	245° (380° /s) 4.28 rad (6.63 rad/s)	245° (310° /s) 4.28 rad (5.41 rad/s)	230° (460° /s) 4.01 rad (8.03 rad/s)		
	J3 axis	420° (520° /s) 7.33 rad (9.08 rad/s)	430° (410° /s) 7.50 rad (7.16 rad/s)	402° (520° /s) 7.02 rad (9.08 rad/s)		
	J4 axis	380° (550° /s) 6.63 rad (9.60 rad/s)	250° (545° /s) 4.36 rad (9.51 rad/s)	380° (550° /s) 6.63 rad (9.60 rad/s)	380° (560° /s) 6.63 rad (9.77 rad/s)	240° (560° /s) 4.19 rad (9.77 rad/s)
	J5 axis	250° (545° /s) 4.36 rad (9.51 rad/s)	720° (1500° /s) 12.57 rad (26.18 rad/s)	250° (545° /s) 4.36 rad (9.51 rad/s)	(注6) 240° (560° /s) 4.19 rad (9.77 rad/s)	720° (1500° /s) 12.57 rad (26.18 rad/s)
	J6 axis	720° (1000° /s) 12.57 rad (17.45 rad/s)		720° (1000° /s) 12.57 rad (17.45 rad/s)	720° (900° /s) 12.57 rad (15.71 rad/s)	
Max. load capacity at wrist	7 kg			4 kg		
Allowable load moment at wrist	J4 axis	16.6 N·m			8.86 N·m	
	J5 axis	16.6 N·m	4.0 N·m 5.5 N·m (option)	16.6 N·m	8.86 N·m	4.0 N·m 5.5 N·m (option)
	J6 axis	9.4 N·m		9.4 N·m	4.90 N·m	
Allowable load inertia at wrist	J4 axis	0.47 kg·m <sup>2</sup>			0.20 kg·m <sup>2</sup>	
	J5 axis	0.47 kg·m <sup>2</sup>	0.046 kg·m <sup>2</sup> 0.15 kg·m <sup>2</sup> (option)	0.47 kg·m <sup>2</sup>	0.20 kg·m <sup>2</sup>	0.046 kg·m <sup>2</sup> 0.083 kg·m <sup>2</sup> (option)
	J6 axis	0.15 kg·m <sup>2</sup>		0.15 kg·m <sup>2</sup>	0.067 kg·m <sup>2</sup>	
Repeatability	± 0.02 mm		± 0.03 mm			
Mass (Note 3)	25 kg	24 kg	27 kg	20 kg	19 kg	
Installation environment	Ambient temperature : 0~45°C Ambient humidity : Normally 75%RH or less (No dew nor frost allowed) Short term 95%RH or less (within one month) Vibration acceleration : 4.9m/s <sup>2</sup> (0.5G) or less					

Note 1) In case of short distance motion, the axis speed may not reach the maximum value stated.

Note 2) Angle mounting needs J1 and J2 axis motion range restriction according with the payload, except for LR Mate 200iD/4S, /4SC and /4SH.

Note 3) Without controller.

Note 4) The liquids that deteriorate the sealing members, such as organic solvents, acids, alkalis, and chloric coolants, must not be used.

Note 5) Cleanliness of the clean type (/7C, /7LC, /4SC) is class 10 (ISO class 4) with white paint, antitrust surface and food grade grease.

Note 6) In case of /4SC, J5 motion range is restricted to 236° (4.11 rad).

# FANUC CORPORATION

•Headquarters Oshino-mura, Yamanashi 401-0597, Japan  
Phone: 81-555-84-5555 Fax: 81-555-84-5512 <http://www.fanuc.co.jp>

●Overseas Affiliated Companies  
FANUC America Corporation  
FANUC Europe Corporation, S.A.  
SHANGHAI-FANUC Robotics CO., LTD.  
KOREA FANUC CORPORATION  
TAIWAN FANUC FA Corporation  
FANUC INDIA PRIVATE LIMITED  
FANUC SINGAPORE PTE. LTD.  
FANUC THAI LIMITED  
FANUC MECHATRONICS (MALAYSIA) SDN. BHD.  
  
PT. FANUC INDONESIA  
FANUC OCEANIA PTY. LIMITED  
FANUC SOUTH AFRICA (PROPRIETARY) LIMITED

3900 West Hamlin Road, Rochester Hills, MI 48309-3253, U.S.A.  
Zone Industrielle, L-6468 Echternach, Grand-Duché de Luxembourg  
No. 1500 Fuliian Road, Baoshan Area, Shanghai, China  
101, Wanam-ro(st), Seongsan-gu, Changwon-si, Gyeongsangnam-do, 641-290 Republic of Korea  
No.10, 16th Road, Taichung Industrial Park, Taichung, Taiwan  
41-A, Electronics City, Bangalore, 560 100, India  
No.1 Teban Gardens Crescent, Singapore 608919, Singapore  
1301 Pattanakorn Road, Kwaeng Suanluang, Khet Suanluang, Bangkok 10250 Thailand  
No.32, Jalan Pengacara U1/48, Temasya Industrial Park, Section U1, Glenmarie,  
40150 Shah Alam, Selangor Darul Ehsan, Malaysia  
JL. Boulevard Bukit Gading Raya Blok R, Jakarta 14240 Indonesia  
10 Healey Circuit, Huntingwood, NSW 2148, Australia  
17 Loper Ave. Aeroport Industrial Ests, Spartan Ext.2 P.O.Box 219, Isando 1600, Republic of South Africa

Phone: 1-248-377-7000 Fax: 1-248-377-7477  
Phone: 352-727777-1 Fax: 352-727777-403  
Phone: 86-21-5032-7700 Fax: 86-21-5032-7711  
Phone: 82-55-278-1200 Fax: 82-55-284-9826  
Phone: 886-4-2359-0522 Fax: 886-4-2359-0771  
Phone: 91-80-2852-0057 Fax: 91-80-2852-0051  
Phone: 65-6567-8566 Fax: 65-6566-5937  
Phone: 66-2-714-6111 Fax: 66-2-714-6120  
  
Phone: 60-3-7628-0110 Fax: 60-3-7628-0220  
Phone: 62-21-4584-7285 Fax: 62-21-4584-7288  
Phone: 61-2-8822-4600 Fax: 61-2-8822-4666  
Phone: 27-11-392-3610 Fax: 27-11-392-3615

●All specifications are subject to change without notice.  
●No part of this catalog may be reproduced in any form.  
●The products in this catalog are controlled based on Japan's "Foreign Exchange and Foreign Trade Law". The export from Japan may be subject to an export license by the government of Japan. Further, re-export to another country may be subject to the license of the government of the country from where the product is re-exported. Furthermore, the product may also be controlled by re-export regulations of the United States government. Should you wish to export or re-export these products, please contact FANUC for advice.

© FANUC CORPORATION, 2012  
LR MateiD(E)-04, 2014.4, Printed in Japan